



NCERT NOTES

GEOGRAPHY

6th Standard



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Our Earth is part of the solar system which consists of various other objects like the sun, planets, asteroids, twinkling stars, etc. Earth has all life supporting systems which work in sync to make life possible on Earth.

What are celestial bodies?

- Celestial bodies or heavenly bodies are objects in space such as the Sun, Moon, Planets, and Stars. They are part of the Universe.
- Stars like the Sun are **made up of very hot gases** and they emit their own light and heat.
- Twinkling stars are like the Sun but we do not feel their heat or light as they are far away from us.

What are constellations?

- These are **groups of stars** and they form different patterns.
- **Ursa Major or Big Bear** is one such example of constellations.
- One of the most recognizable constellations is **Saptarishi**; it is a group of seven stars that forms part of the Ursa Major constellation.
- We can locate the position of the Pole star with the help of Saptarishi constellations.

What are the Planets?

- The word Planet came from the Greek word “**Planetai**” which means Wanderers.
- These are the **celestial bodies that don’t emit heat and light**.

What is the Solar system?

The Sun, eight planets, satellites, and some other celestial bodies known as asteroids and meteoroids constitute our solar system.

The Sun:

It is **made of extremely hot gases** and it is the centre of our solar system. It acts as pulling factor around which other planets and objects revolve.

The Planets:

- There are **eight planets** in our solar system. In order of their distance from the Sun, they are: **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune**.
- All these planets revolve around the Sun in an elongated orbit.
- **Mercury is the nearest** to the Sun and it takes **only 88 days** to complete 1 orbit around the Sun.
- **Venus is called Earth’s twin** because of its same size and shape which is very much similar to that of Earth.

The Earth:

- It is the **third nearest and fifth largest planet** in our solar system. It is **slightly flattened at poles**. That’s why; its shape is described as “Geoid”.
- Life favourable conditions such as presence of water, air and neither too hot nor too cold temperature etc., makes the Earth a unique planet.
- It is also called ‘**Blue planet**’ because its two-third part is covered with water.



- Earth has **only one satellite, the Moon**, which is 3, 84,400 km away from Earth.
- The Moon revolves around the Earth in 27 days; it takes exactly the same time to complete one spin.

Asteroids:

These are numerous tiny bodies which move around the Sun. They **generally found between the orbits of Mars and Jupiter**. They are considered as part of the planets which exploded many years back.

Meteoroids:

These are tiny rocks that move around the Sun. Sometimes, they come in contact with the Earth's atmosphere and due to the friction, they get heated up and burn with a flash of light. While Meteor, without being completely burnt, falls on Earth and makes hollow.

Galaxy:

A galaxy is a **cluster of billions of stars** that look whitish. **The Milky Way** is such an example. Our solar system is part

of the galaxy which is called the **Akash Ganga**. The whole Universe is made of millions of such galaxies.

Interesting Points:

- **Jupiter, Saturn and Uranus have rings** around them which are belts of small debris.
- 'Sol' in Roman mythology is the **'Sun god'**. 'Solar' means 'related to the Sun'. The family of the Sun is, therefore, called the solar system.
- A Satellite is a **celestial body that moves around the planets** in the same way as the planets move around the Sun.
- A Human-made Satellite is **an artificial body** which is designed by scientists to gather information about the universe or for communication.
- The Moon and the planets shine due to reflected sunlight (According to Aryabhatta).
- Light travels at the speed of **about 3,00,000 km per second**.
- The light of the Sun takes **about eight minutes** to reach the Earth.



Globe is a true model (miniature form) of the Earth, which is very helpful to improve understanding of Earth's shape and size such as the Earth is flattened at Poles and bulge at Equator (middle).

What is the globe?

- Globes may be of **varying size and type** – big ones, which cannot be carried easily, small pocket globes, and globe-like balloons, which can be inflated and are handy and carried with ease. The globe is not fixed. It can be rotated the same way as topspin or a potter's wheel is rotated. On the globe, countries, continents, and oceans are shown in their correct sizes.
- A needle is fixed through the globe in a tilted manner, which is called its **axis**.
- Two points on the globe through which the needle passes are two poles – **the North Pole and the South Pole**.
- But in case of the real Earth, it has no such needle. It moves around its axis, which is an imaginary line.

What is the Equator?

- The **imaginary line** running on the globe divides it into two equal parts. This line is known as the equator. The Northern Hemisphere is north of this line and the Southern Hemisphere is south of this line.
- All parallel circles from the equator up to the poles are called **parallels of latitudes**. Latitudes are measured in degrees.
- The Equator represents the zero degrees latitude**. Since the distance

from the Equator to either of the poles is one-fourth of a circle round the Earth, it will measure $\frac{1}{4}^{\text{th}}$ of 360 degrees, i.e. 90° . Thus, 90 degrees north latitude marks the North Pole and 90 degrees south latitude marks the South Pole.

- All parallels north of the Equator are called '**North Latitudes**.' Similarly, all parallels south of the Equator are called '**South Latitudes**.'
- The value of each latitude is, therefore, followed by either the word North or South. Generally, this is indicated by the letter 'N' or 'S'.

Important parallels of latitude:

Besides the Equator (0°), the North Pole (90°N), and the South Pole (90°S), there are four important parallels of latitudes:

- Tropic of Cancer ($23\frac{1}{2}^{\circ}\text{ N}$)** in the Northern Hemisphere.
- Tropic of Capricorn ($23\frac{1}{2}^{\circ}\text{ S}$)** in the Southern Hemisphere.
- Arctic Circle at $66\frac{1}{2}^{\circ}$ north** of the Equator.
- Antarctic Circle at $66\frac{1}{2}^{\circ}$ south** of the Equator.

Heat zones of the Earth:

- Torrid Zone:**
The mid-day Sun is exactly overhead at least once a year on all latitudes between the Tropic of Cancer and the Tropic of Capricorn. These areas receive maximum heat thus called **Torrid Zones**.

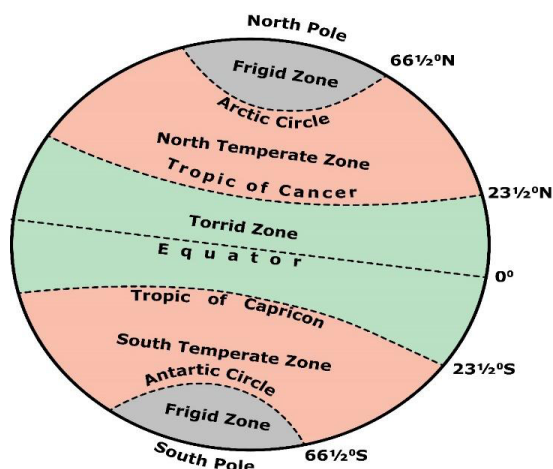


Fig: 2.1: Important latitude and Heat zones

Temperate Zone:

- The mid-day Sun never shines overhead beyond the Tropic of Cancer and Tropic of Capricorn. The angle of the Sun's rays goes decreasing towards the poles.
- This is the area between the Tropic of Cancer and Arctic Circle in the Northern Hemisphere and between the Tropic of Capricorn and Antarctic in the Southern Hemisphere.
- This area is having a moderate temperature.

Frigid zones:

This is the area between the Arctic Circle and North Pole in Northern Hemisphere and Antarctic Circle and Southern pole in Southern Hemisphere. These are very cold areas and the **Sun never shines above the horizon here.**

What is the longitude?

- In order to locate any place on Earth precisely, we must find out how far east or west these places are from a given line of reference running from the North

Pole to the South Pole. These lines of references are called **the meridians of longitude**, and the distances between them are measured in 'degrees of longitude'.

- **Each degree is further divided into minutes, and minutes into seconds.** They are semi-circles and the distance between them decreases steadily pole wards until it becomes zero at the poles, where all the meridians meet. All meridians are of equal length.
- The Meridian which is passing through Greenwich, where the British Royal Observatory is located is called the **Prime Meridian**. Its value is "0" longitude and from it we count 180° eastward as well as 180° westward.
- 180° meridian divides the Earth into two equal halves, **the Eastern Hemisphere** and the **Western Hemisphere**.
- The longitude of a place is followed by the letter E for the east and W for the west. It is, however, **interesting to note that 180° East and 180° West meridians are on the same line.**

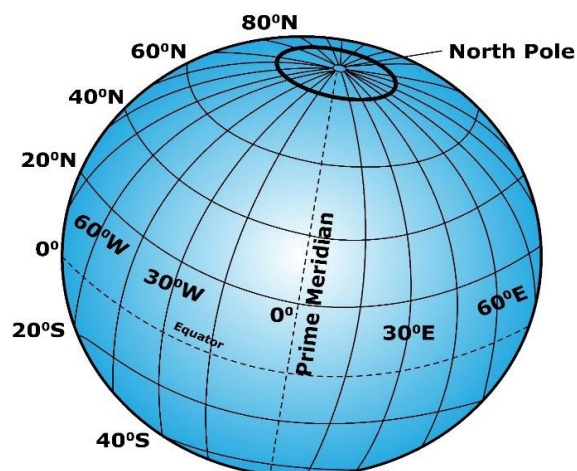


Fig: 2.2: Grids



Longitude and Time:

- The best means of measuring time is by the movement of the Earth, the Moon, and the planets.
- The shadow cast by the Sun is the **shortest at noon and longest at sunrise and sunset**.
- The Earth rotates 360° in about 24 hours, which means 15° an hour or 1° in four minutes.
- In India, the **longitude of $82\frac{1}{2}^\circ$ E ($82^\circ 30'E$)** is treated as the **standard meridian**.

Therefore the longitude and the latitude are very crucial in understanding about any place on globe or on Earth.

Interesting Points:

- Tonga Islands (in the Pacific Ocean) and Mauritius Islands (in the Indian Ocean) are situated on the same latitude.
- We can know the latitude of our place by measuring the angle of the Pole Star from our place.



3

Motions of the Earth

The Earth has two types of motions, namely **Rotation and Revolution**.

- **Rotation** is the movement of the Earth on its axis.
- **Revolution** is the movement of the Earth around the Sun in a fixed path or orbit.

Rotation and associated terms:

- The axis of the Earth, which is an imaginary line, makes an **angle of $66\frac{1}{2}^\circ$**

with its orbital plane. The plane formed by the orbit is known as the **orbital plane**.

- The circle that divides the day from night on the globe is called the **circle of illumination**.
- The period of rotation is known as **Earth day** which is the daily motion of the earth.

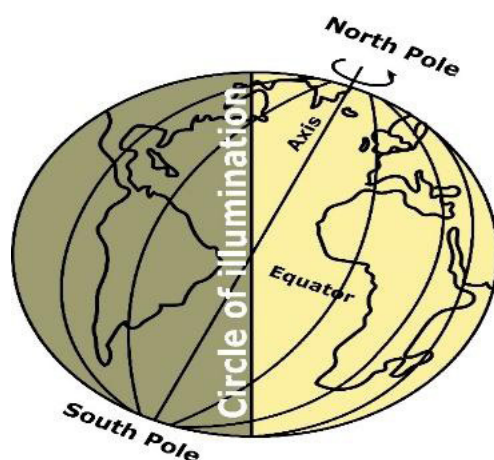
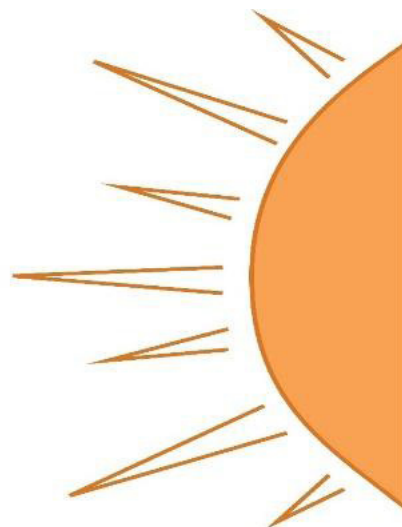


Fig. 3.1: Day and Night on the Earth due to rotation



Important points related to Revolution:

- 365 $\frac{1}{4}$ days is the time taken by the Earth to complete one revolution.
- Every fourth year, February is 29 days instead of 28 days. Such a year with 366 days is called a **leap year**.
- In this revolution time, the Earth goes around the sun in **an elliptical orbit**. Throughout its orbit, the Earth is inclined in the same direction.
- Seasonal changes are due to change in the Earth's position around the Sun.

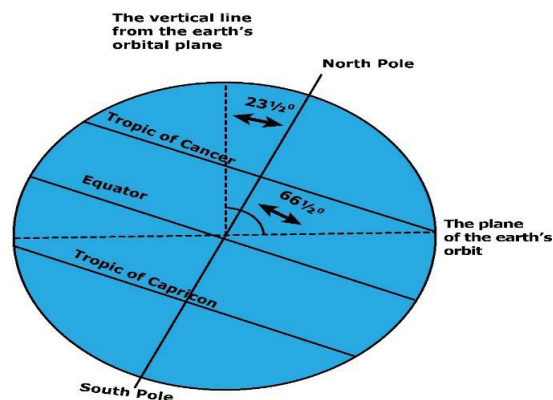


Fig. 3.2: Inclination of the Earth's axis and the orbital plane

Important dates in Earth's revolution:

On 21st June:

- The **Northern Hemisphere** is tilted towards the Sun. The rays of the Sun fall directly on the Tropic of Cancer. As a result, these areas receive more heat and areas near poles receive less heat due to slanting rays. Places around the Arctic Circle receive continuous daylight for 6 months. Therefore it is called the **summer season** in the Northern Hemisphere.
- The longest day and the shortest night occur at these places on 21st June. The reverse happens in the Southern Hemisphere. This position of the Earth is called the **Summer Solstice**.

On 22nd December:

- The Tropic of Capricorn receives direct rays of the Sun as the South Pole tilts towards it. As **the Sun's rays fall**

vertically at the Tropic of Capricorn ($23\frac{1}{2}^{\circ}$ S), a larger portion of the **Southern Hemisphere gets light**. Therefore, it is summer in the Southern Hemisphere with longer days and shorter nights. The reverse happens in the Northern Hemisphere. This position of the Earth is called the **Winter Solstice**.

On 21st March and 23rd September:

- Direct rays of the Sun fall on **the Equator**. At this position, neither of the poles is tilted towards the Sun; so, the whole **Earth experiences equal days and equal nights**. This is called **an equinox**.
- On **23rd September**, it is the autumn season in the Northern Hemisphere and spring season in the Southern Hemisphere. The opposite is the case **on 21st March** when it is spring in the Northern Hemisphere and autumn in the Southern Hemisphere.

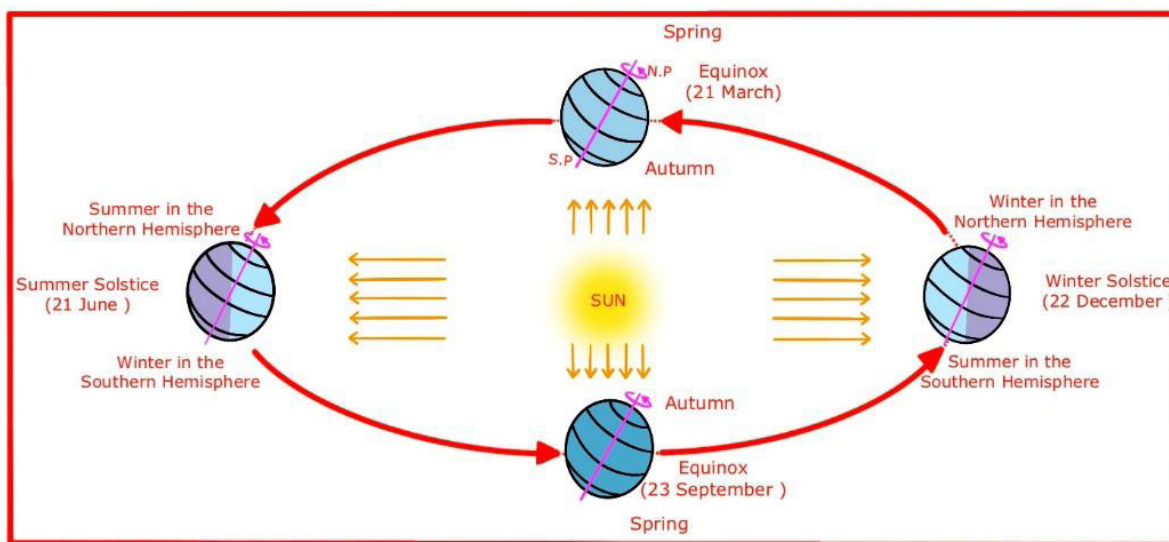


Fig. 3.3: Revolution of the Earth and Seasons



Thus, the rotation and revolution of the Earth is responsible for formation of days and nights and seasonal changes respectively.

Interesting Points:

- The ancient Indian astronomer Aryabhata had stated that 'the Earth is round and rotates on its own axis'.

A map is a **representation or a drawing of the Earth's surface** or a part of it drawn on a flat surface according to a scale. Generally, maps provide more information than a globe.

Types of Maps:

- **Physical Maps:** Maps showing natural features of the Earth such as mountains, plateaus, plains, rivers, oceans, etc. are called physical or relief maps.
- **Political Maps:** Maps showing cities, towns and villages, and different countries and states of the world with their boundaries are called political maps.
- **Thematic Maps:** Some maps focus on specific information; such as roadmaps,

rainfall maps, maps showing the distribution of forests, industries, etc. are known as thematic maps.

Important components of maps:

- **Scale:** Scale is the ratio between the actual distance on the ground and the distance shown on the map. Small scale and large scale maps are two types of maps.
- **Cardinal points:** These points on maps are directions such as North, East, West, and South.
- **Symbols:** Maps have a universal language that can be understood by all. There is an international agreement regarding the use of these symbols. These are called conventional symbols.

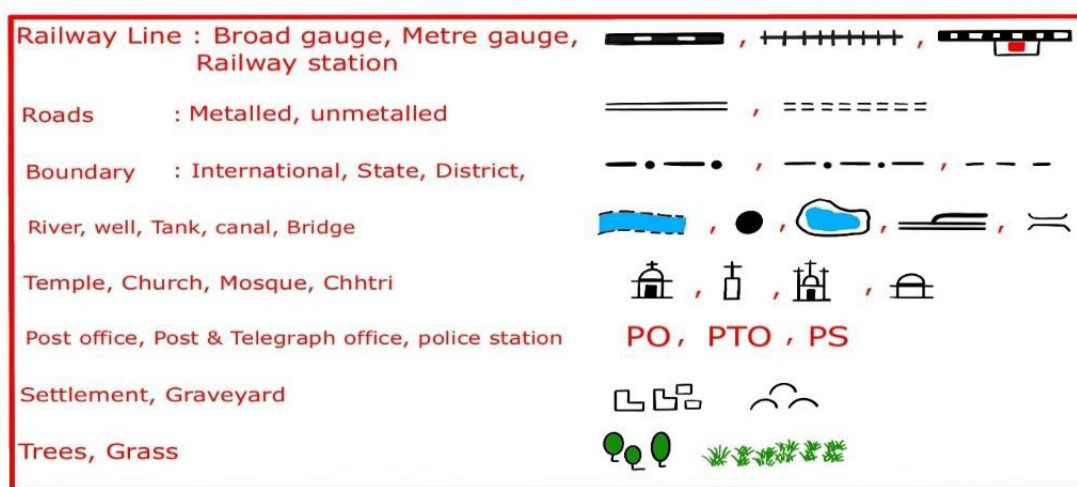


Fig. 4.1: Conventional Symbols

- **Sketch:** A sketch is a drawing mainly based on memory and spot observation and not to scale. It is a rough drawing without scale.
- **Plan:** A plan is a drawing of a small area on a large scale. A large-scale map gives

a lot of information, for example, the length and breadth of a room, which can't be shown on a map.

Thus, maps act as a blue print as it provides authentic information about any place or region.



5

Major Domains of the Earth

Earth is made up of a complex system of interacting domains which makes life on the Earth possible. These domains consist of land, water and air on Earth. The surface of the Earth is a complex zone in which three main components of the environment i.e. Lithosphere, Atmosphere and Hydrosphere meet, overlap and interact.

Lithosphere:

- The solid portion of the Earth is called the **Lithosphere**. It comprises the rocks of the Earth's crust and the thin layers of soil that contain nutrient elements that sustain organisms.
- There are two main divisions of the Earth's surface. Large landmasses are known as **continents** while huge water bodies are called as **ocean basins**.

Seven Major Continents on Earth:

- **Asia:** It is the largest continent which comprises one-third area of the Earth. It lies in the Eastern Hemisphere. It is **separated from Europe by the Ural Mountains** on the west side. The Tropic of Cancer passes through it.
- **Europe:** It lies west of Asia. The Arctic Circle passes through it and it is surrounded by water bodies from three sides.
- **Africa:** It is second largest continent after Asia. All the three latitudes pass through this continent. **World's biggest desert Sahara** is present on the northern part of the continent. It is the **only continent which is bound by water from all sides** of the continent. The **world's longest river Nile** flows through this

continent.

- **North America:** It is third largest continent which is linked to South America by a very narrow strip of land called the **Isthmus of Panama**. The continent lies completely in the Northern and Western Hemispheres. Three oceans surround this continent.
- **South America:** It lies mostly in the Southern Hemisphere. **The Andes, the world's longest mountain range**, runs through its length from north to south. South America has the **world's largest river, the Amazon**.
- **Australia:** It is the smallest continent that lies entirely in the Southern Hemisphere. It is surrounded on all sides by the oceans and seas. It is also called as **island continent**.
- **Antarctica:** It is a huge continent lying completely in the Southern Hemisphere. The South Pole lies almost at the centre of this continent. As it is located in the South Polar Region, it is permanently covered with thick ice sheets. There are **no permanent human settlements**. Many countries have research stations in Antarctica. India also has research stations there. These are named **Maitri and Dakshin Gangotri**.

Atmosphere:

- The thin layer of gas which surrounds the Earth is called the atmosphere.
- It extends up to a **height of about 1,600 kilometres**.
- The atmosphere is divided **into five layers** based on composition, temperature, and other properties. These layers starting from the Earth's

surface are called **the troposphere, the stratosphere, the mesosphere, the thermosphere, and the exosphere.**



Fig. 5.1: Layers of the Atmosphere

- The atmosphere is composed mainly of **Nitrogen and Oxygen**, which make up about 99 per cent of clean, dry air.
- Nitrogen 78 per cent, Oxygen 21 per cent and other gases like Carbon Dioxide, Argon and others comprise 1 per cent by volume.

Hydrosphere:

- The Hydrosphere **comprises water in all its forms**, i.e. ice, water, water vapour, running water in ocean, river, underground water, etc.
- More than 71 per cent of the Earth is covered with water and 29 per cent is with land. That's why, the Earth is known as "**Blue Planet**".

Oceans:

- Oceans are the major part of hydrosphere. They are all inter-connected and water in the ocean is always moving.
- The **three chief movements** of ocean waters are **the waves, the tides, and the ocean currents.**
- The five major oceans are the **Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Southern Ocean, and the Arctic Ocean**, in order of their size.
- **The Pacific Ocean:** It is the largest ocean which is spread over one-third of the Earth. **Mariana Trench**, the deepest part of the Earth, lies in the Pacific Ocean. The Pacific Ocean is **almost circular** in shape. It is surrounded by Asia, Australia, North, and South America.
- **The Atlantic Ocean:** It is the **second-largest ocean** in the world. It is '**S**' shaped. It is flanked by the North and South Americas on the western side, and Europe and Africa on the eastern side. The coastline of the Atlantic Ocean is **highly indented**. This irregular and indented coastline provides **an ideal location for natural harbours and ports**. From the point of view of commerce, it is the **busiest Ocean**.
- **The Indian Ocean:** It is the only ocean named after a country, that is, India. The shape of the ocean is **almost triangular**. In the north, it is bound by Asia, in the west by Africa, and in the east by Australia.
- **The Southern Ocean:** It encircles the continent of Antarctica and extends northward to 60 degrees south latitude. The Arctic Ocean is located within the Arctic Circle and surrounds the North

Pole. It is connected with the Pacific Ocean by a narrow stretch of shallow water known as **the Bering Strait**. It is bound by the northern coasts of North America and Eurasia.

Biosphere:

- It is the narrow zone where we find land, water and air together, which contains all forms of life.



Fig. 5.2: The Biosphere

Interesting Points:

- **Strait:** It is a **narrow passage of water** connecting two large water bodies like seas and ocean. E.g. Strait of Malacca, Palk Strait etc.
- **Isthmus:** A **narrow strip of land** joining two land masses. E.g. Isthmus of Panama.
- In the Greek language, Lithos means Stone; Atmos means Vapour; Hudor means Water; and Bios means Life.
- **Edmund Hillary (New Zealand) and Tenzing Norgay Sherpa (India)** were the first men to climb the highest mountain peak Mt. Everest on the planet Earth on 29th May, 1953.
- **Junko Tabei (Japan)** was the **first woman** to reach the summit on 16th May, 1975.
- The **first Indian woman** to climb the highest peak on 23rd May, 1984 was **Bachendri Pal**.

Landforms on the surface of the Earth are the **ultimate result of internal and external processes**.

- **Internal process** which leads to the upliftment and sinking of the Earth's surface at several places.
- **External process** is the continuous wearing down and rebuilding of the

land surface. The wearing away of the earth's surface is called erosion. The surface is being lowered by the process of erosion and rebuilt by the process of deposition. These two processes are carried out by running water, ice, and wind.

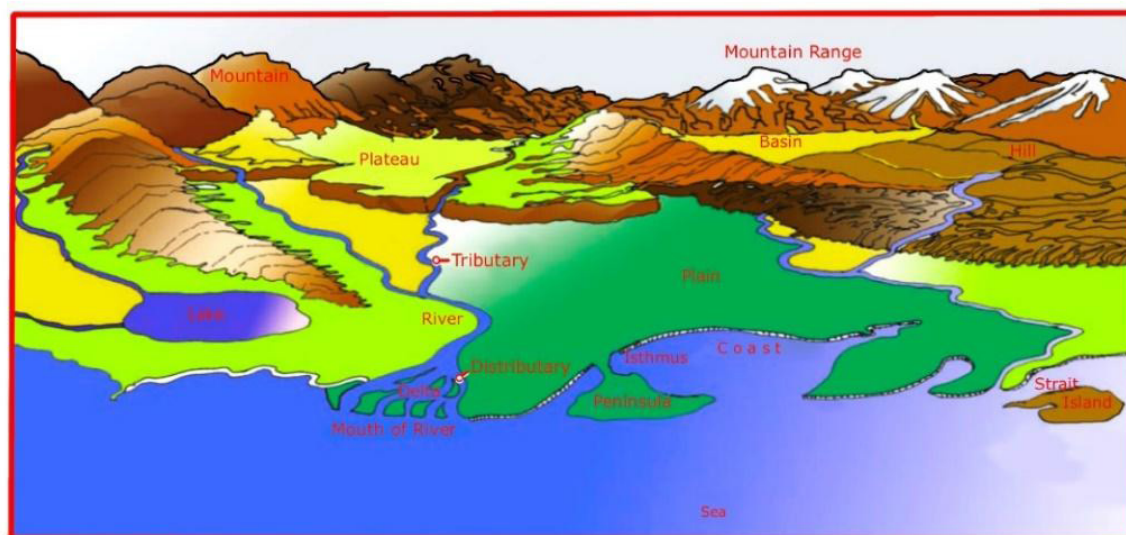


Fig. 6.1: Landforms

Types of landforms depending on elevation and slopes

Mountains:

- A mountain is **any natural elevation** of the Earth surface which is considerably higher than the surrounding area.
- The **arrangement of mountains in a line** is known as the **range**.
- Many mountain systems **consist of a series of parallel ranges** extending over hundreds of kilometres. **The Himalayas, the Alps, and the Andes** are mountain ranges of Asia, Europe, and South

America, respectively.

- In some mountains, there are permanently frozen rivers of ice. They are called glaciers.

Three types of mountains:

- **Fold Mountains:** These mountains are created where two or more of Earth's tectonic plates are pushed together. At these colliding, compressing boundaries, rocks and debris are warped and folded into rocky outcrops, hills, mountains, and entire mountain ranges.

- The **Himalayan Mountains and the Alps** are young fold mountains with rugged relief and high conical peaks.
- The **Aravali Range in India** is one of the oldest fold mountain systems in the world.
- The **Appalachians in North America and the Ural mountains in Russia** have rounded features and low elevation. They are very old fold mountains.

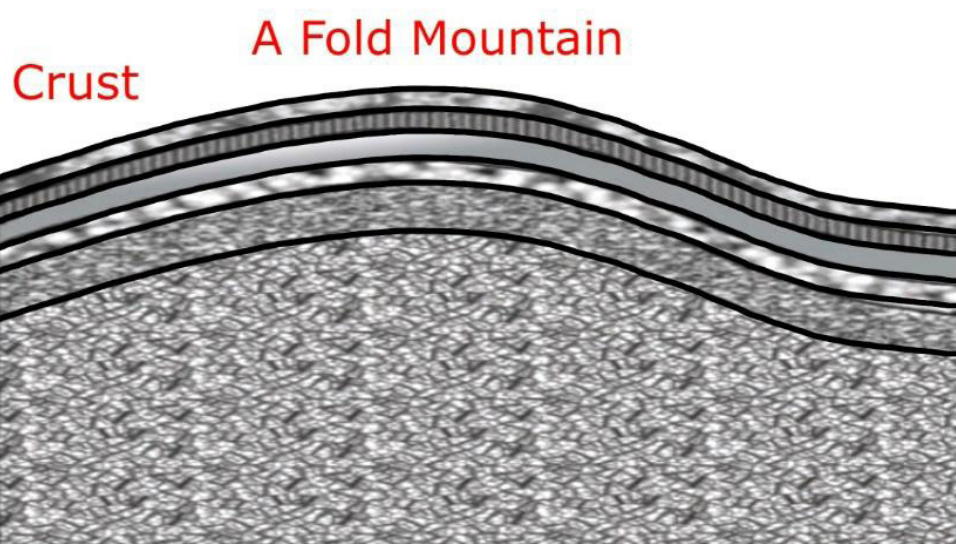


Fig. 6.2: Fold Mountains

- **Block Mountains:** These types of mountains are created when large areas are broken and displaced vertically. The uplifted blocks are termed as **horst** and the lowered blocks are called **graben**. The Rhine valley and the Vosges Mountain in Europe are examples of such mountain systems.

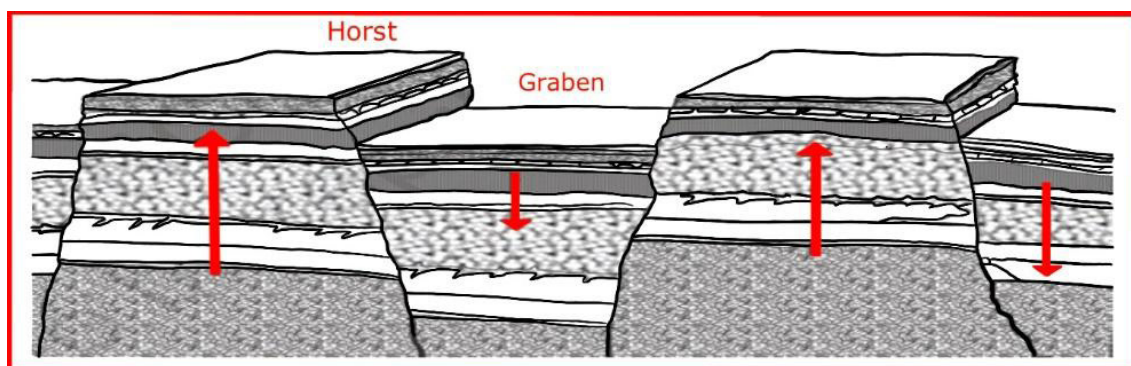


Fig. 6.3: Block Mountains

- **Volcanic Mountains:** These Mountains are **formed due to volcanic activity**. **Mt. Kilimanjaro in Africa and Mt. Fujiyama in Japan** are examples of such mountains.

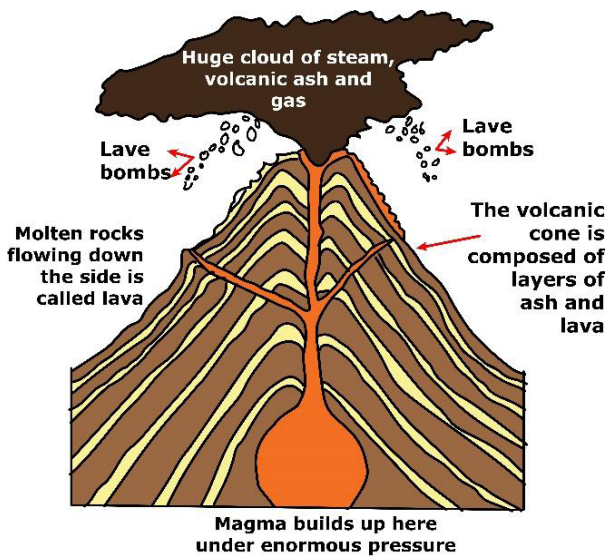


Fig. 6.4: Volcanic Mountains

Significance of the Mountains:

- They are **storehouse of water**.
- Water from the mountains is also used for irrigation and generation of hydro-electricity.
- Mountains provide an **idyllic site for tourists**.
- They are also **useful for crop cultivation** e.g. terrace farming etc.

Plateaus:

It is a **flat tableland standing** above the surrounding area. Like mountains, they are also young and old. E.g. **Deccan plateau** is one of the oldest plateaus. Other examples are the **East African Plateau** in Kenya, Tanzania, and Uganda and the **Western plateau** of Australia.

Importance of Plateaus:

- World's **major mining areas** are generally found on plateaus. For example; African plateau is famous for gold and diamond mining. In India, huge reserves of iron, coal, and manganese are found in the Chota Nagpur plateau.
- In the plateau areas, there **may be several waterfalls** as the river falls from a great height. In India, the **Hundru falls in the Chotanagpur plateau on the river Subarnarekha** and the **Jog falls in Karnataka** are examples of such waterfalls.
- The lava plateaus are **rich in black soil that is fertile and good for cultivation**.

Plains:

These are **large stretches of flatlands**; they are generally not more than 200 meters above sea level. Generally, plains are very fertile. Most of the plains are formed by the rivers by depositing the eroded material along their courses and in their valleys. These plains are **thickly populated** regions in the world such Gangetic belt in India, the Yangtze in China etc.

Interesting Points:

- A hill is a **land surface that rises higher** than the surrounding area. Generally, a steep hill with an elevation of more than 600 metres is termed as a mountain.
- **Mauna Kea (Hawaii)** in the Pacific Ocean is an undersea mountain. It is higher than Mount Everest being 10,205 metres high.



7

Our Country – India

India is a country of vast geographical expanse. In the North, it is bound by the lofty Himalayas. The Arabian Sea in the West, the Bay of Bengal in the East and the Indian Ocean in the South, wash the shores of the Indian peninsula.

Key points related to India:

- India has an area of **about 3.28 million sq. km.** The **north-south extent** from Kashmir to Kanyakumari is about **3,200 km.** And the **east-west extent** from Arunachal Pradesh to Kuchchh is about **2,900 km.**
- Southern part is called **peninsular land mass** which is surrounded by water from three sides.
- The lofty mountains, the Great Indian Desert, the Northern Plains, the uneven plateau surface and the coasts and islands present a diversity of landforms.
- There is a great variety in the climate, vegetation, wildlife as well as in the language and culture.

- There are seven countries that share land boundaries with India that are China, Bhutan, Nepal, Pakistan and Afghanistan in the North or north-west, and with Bangladesh and Myanmar in the East.

Location:

- India is **located in the Northern Hemisphere**, the Tropic of Cancer divides India into 2 parts, the Southern and the Northern part.
- From South to North, main land of India extends between **8°4'N and 37°6'N latitudes.** From West to East, India extends between **68°7'E and 97°25'E longitudes.**
- There is a **great longitudinal extent of about 29°** which has an impact on local time differences.
- The local time **changes by four minutes for every one degree** of longitude. The local time of longitude of 82°30'E has been taken as the Indian Standard Time.

Physical Division of India:

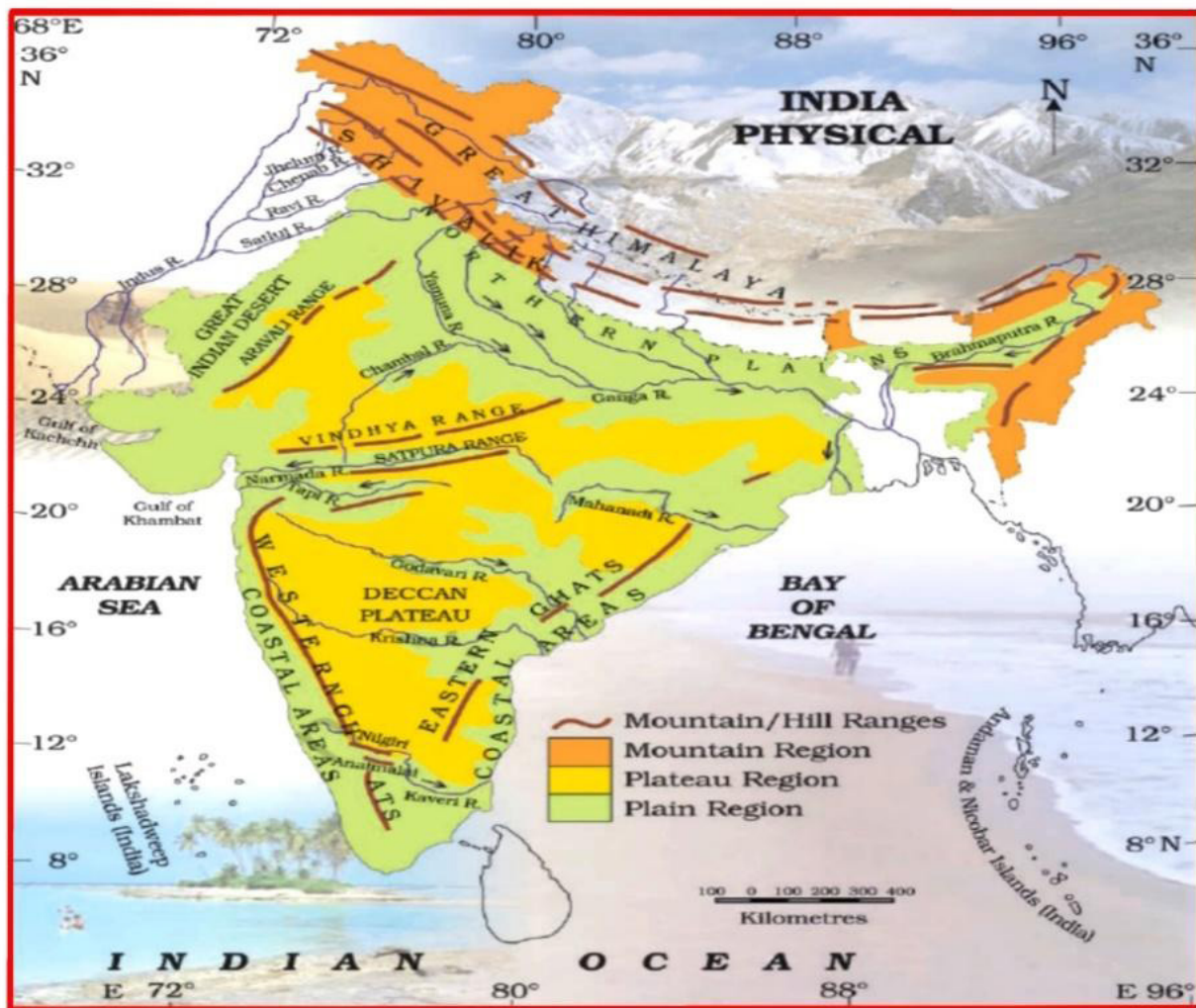


Fig. 7.1: Physical division of India

- India is marked by a diversity of physical features such as mountains, plateaus, plains, coasts and islands.
- Himalayan Mountain** divided into 3 parallel mountain ranges such as Northernmost is **Himadri or Greater Himalaya**; world's highest mountain peaks are located in this range. In the South of Greater Himalaya, **Middle or Himachal, Himalaya** is situated. Many popular hill stations are situated here. **Shiwalik** is the southernmost range.
- Northern Plains:** These plains are South of the Himalayas and they are generally

flat and level. These plains are formed by rivers like Ganga, Brahmaputra, Sindhu and their tributaries. These regions provide fertile soil for agriculture that's why these are one of the regions of highest population concentration.

- **The Great Indian Desert:** It lies in the western part of the country. It is a dry, hot and sandy stretch of land. It has very little vegetation.
- **Peninsular Plateau:**
 - It is situated south of the northern plains, it is **triangular in shape** and its relief is highly irregular. This region has numerous hills such as Aravali, one of the oldest residual mountains in the world, situated in the north-west part.
 - The rivers Narmada and Tapi (West flowing rivers) flow through Vindhya and Satpura ranges.
 - The Western Ghats or Sahyadris border the plateau in the West and the Eastern Ghats provide the Eastern boundary.
 - The Coastal plains lie to the West of the Western Ghats and the East of Eastern Ghats. Western coastal plains are very narrow and eastern coastal plains are much broader due to delta formed by various rivers such as Mahanadi, Godavari, Krishna etc.

- **Island groups:** Two groups of islands also form part of India. **Lakshadweep Islands (Coral islands)** are located in the Arabian Sea. The **Andaman and the Nicobar Islands** lie to the southeast of the Indian mainland in the Bay of Bengal.

Interesting Points:

- The peninsula is a piece of land that is surrounded by water on three sides.
- Large countries which stretch extensively from east to west do not have a single Standard Time for the whole country. The **USA and Canada have seven and six time zones** respectively.
- **Alluvial deposits:** These are very fine soils, brought by rivers and deposited in the river basins.
- **Tributary:** A river or stream which contributes its water to a main river by discharging it into Main River from either side.
- World's largest delta is the **Sunderban delta** which is triangular in shape.
- **Corals** are skeletons of tiny marine animals called Polyps. When the living polyps die, their skeletons are left. Other polyps grow on top of the hard skeleton which grows higher and higher, thus forming the coral islands.



Weather is about day to day changes in the atmosphere. It includes changes in temperature, rainfall, and sunshine, etc.

Seasons in India:

- **Cold Weather Season or Winter (December to February):** During this season, the Sun rays do not fall directly in the region. As a result the temperatures are quite low in northern India.
- **Hot Weather Season or Summer (March to May):** In the hot weather season sun rays more or less directly fall in this region. Temperature becomes very high. Hot and dry winds called loo, blow during the day.
- **Southwest Monsoon Season or Rainy (June to September):** This season is marked by the onset and advance of monsoon. The winds blow from Arabian Sea and Bay of Bengal towards the land. They carry moisture with them. When these winds strike the mountain barriers, rainfall occurs.
- **Season of Retreating Monsoon or Autumn (October and November):** Winds move back from the mainland to the Bay of Bengal. This is the season of the retreating monsoons. The southern parts of India, particularly Tamil Nadu and Andhra Pradesh receive rainfall in this season.

Climate:

Climate is about **the average weather condition**, which has been measured over many years. The climate of India has broadly been described as **Monsoon type**. Monsoon is taken from the Arabic word '**mausim**', which means seasons.

Factors affecting climates:

The climate of a place is affected by its **location, altitude, distance from the sea and relief**. Therefore, regional differences in the climate of India are experienced.

Natural vegetation:

- The grasses, shrubs, and trees, which grow on their own without interference or help from human beings, are called **natural vegetation**.
- Due to varied climatic conditions, India has a wide range of natural vegetation.

Significance of the forests:

- Forests are the **natural habitat of wild life**.
- Forests perform various important functions such as providing oxygen, absorbing CO₂, improving quality of soil, controlling soil erosion etc.
- It also **provides herbs, lac, honey, gum, fuel, fodder, shelter, raw material** for various basic or primary industries and also for secondary industries.
- It provides **various medicinal plants** for treatments and the cultural significance of forests is very high.

Important Points:

- Tiger is national animal of India.
- Peacock is national bird of India.
- Gir National Park is home to Asiatic lions.
- The **smallest migratory bird Little Stint** weighing as low as 15 gram, from the Arctic region, travels over 8,000 km to reach India.
- The government has also started Project Tiger and Project Elephant to ensure their protection.